

# CREATING VISUAL DATA MODELS BY COMBINING MULTIPLE INTER-RELATED MODEL SEGMENTS

## ABSTRACT

A method, system, and computer-readable medium for creating visual data models from multiple inter-related model segments is described. In order to create inter-relationships between model elements in different model segments, a model segment can include one or more external model elements. Each external model element in a model segment is a reference to another actual model element whose definition or description is located outside the model segment (*e.g.*, in another model segment). After an external model element is created in a model segment, a variety of relationships can be defined between the external model element and other model elements in the model segment. Such a relationship with an external model element signifies a relationship with the actual model element represented by the external model element. If a model segment contains a necessary external model element, such as one to which a relationship exists, the model segment does not define a complete model because the definition or description for the external model element is not contained in the model segment. Thus, when multiple model segments are inter-related via external model elements, all of the model segments may be necessary to form a complete model. To form a complete model, the various model segments are therefore combined and the resulting combined model is verified to be complete.